

## CTR Employer Survey Report

Thank you for completing your Commute Trip Reduction survey. This report contains the survey results.

**Employer Id :** E82165

**Employer :** Astronics Advanced Electronic Systems

**Worksite :** Astronics at QWCC

**Street :** 11261 Willows Rd NE

**Jurisdiction :** City of Redmond

**Survey Date :** 6/29/2016

**Survey :** TMP

**Survey Type :** Online

**Response Rate :** 81%

### Drive Alone & One-Way VMT Rates at this Worksite

### Employees and Survey Response Information

**Drive Alone :** 84.0%  
**One-Way VMT per employee :** 13.0

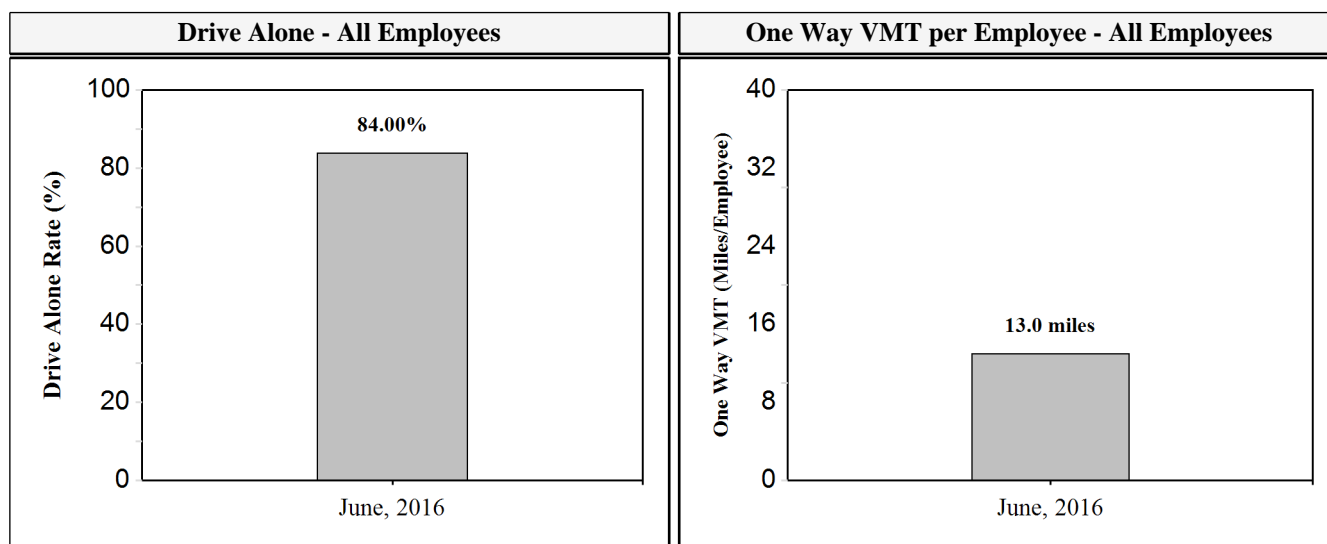
**Reported Total Employees at Worksite:** 101

**Surveys Distributed :** 101

**Surveys Returned :** 82

**Surveys Returned by CTR Affected Employees :** 73

**Total Estimated CTR - Affected Employees at Worksite :** 89



### Site History and Goal

Cycle	Drive Alone - All	Drive Alone - CTR Affected	VMT / Employee - All	VMT / Employee - CTR Affected
June, 2016	84.0%	82.9%	13.0	12.6

## Comparison Between Rates With and Without Fill-In

The survey response rate is indicated on Page 1. To encourage a response rate of at least 70%, additional drive alone trips are added to survey results for worksites with a response rate of less than 70%. For these worksites it is assumed that non-responding employees between the actual response rate and 70% drive alone 5 days a week. These additional trips represent the "Fill-In" applied. Note that fill-in is not applied to a worksite's first survey in the 2007 to 2012 cycle (their baseline survey).

	June, 2016
Drive Alone - All Employees*	84%
Drive Alone - CTR Affected Employees*	82.9%
VMT/Employee - All Employees	13
VMT/Employees - CTR Affected Employees	12.6

\* Drive alone rate includes one person motorcycles.

## GHG Emissions: Total for Drive Alone, Carpools, Vanpools

### Annual Greenhouse Gas Emissions (Metric Tons CO<sub>2</sub>e) for Roundtrip Commute\*

Value	June, 2016
Emissions for Surveyed Employees	215
Estimated Emissions for Total Employment	265

\* Estimated based on VMT from commuters driving alone, carpooling, vanpooling, or motorcycling, without fill-in applied.

## Bus Transit Passenger Miles and Rail Transit Passenger Miles\*

Annual Transit Passenger Miles (includes Roundtrip Commute)	June, 2016
Bus Annual Passenger Miles - Estimated for Total Employment	8,006
Bus Annual Passenger Miles - Surveyed Employees	6,500
Ferry Annual Passenger Miles - Estimated for Total Employment	0
Ferry Annual Passenger Miles - Surveyed Employees	0
Train/Light Rail/Streetcar Annual Passenger Miles - Estimated for Total Employment	0
Train/Light Rail/Streetcar Annual Passenger Miles - Surveyed Employees	0

\* Transit passenger miles can be used to gauge changes in transit usage, and also to calculate greenhouse gas emissions from transit commute trips. However, emissions attributable to transit vary widely, depending on the efficiency/energy source of transit vehicles and transit vehicle passenger load (typically ranging from 0.1 to 0.9 pounds CO<sub>2</sub>e emissions/passenger mile). Employers are strongly encouraged to contact their local transit agencies for more precise information on GHG emissions for their transit trips. If nothing else is available, the value of 0.47 pounds (0.00021 metric tons) per passenger mile can be used to estimate CO<sub>2</sub>e emissions for bus transit, and 0.39 pounds (0.00018 metric tons) CO<sub>2</sub>e emissions per passenger mile for train/light rail/streetcar.

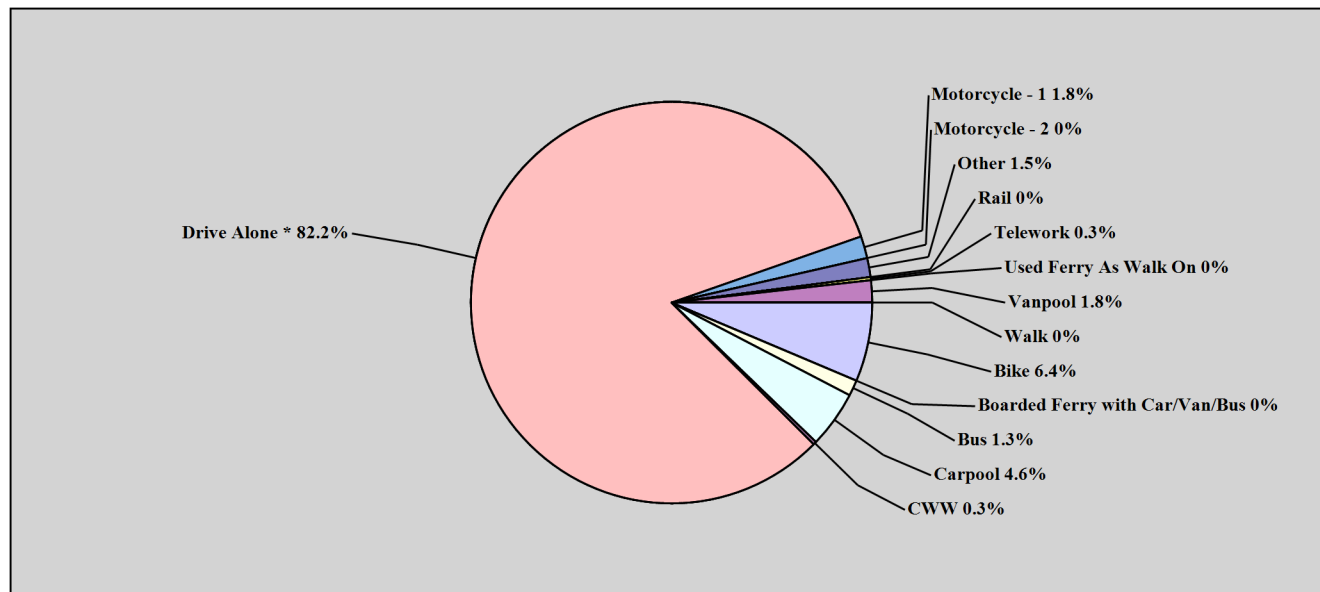
**Q3.**

<b>One way, how many miles do you commute from home to your usual work location?</b>
<b>Average one-way distance home to work: 15.1 miles</b>

## Commute Trips By Mode - All Employees

Q.4a: Last week, what type of transportation did you use each day to commute TO your usual work location? (Mode used for the longest distance.)

Mode Split - All Employees



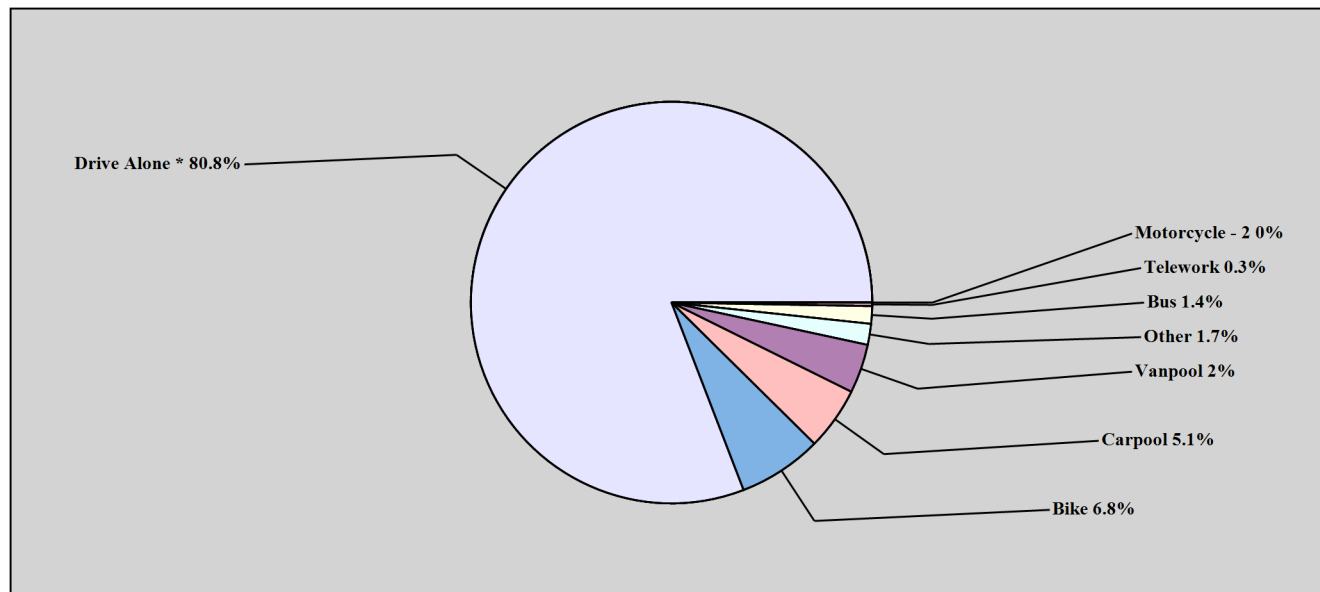
Mode	Trips During This Survey Week	% of Trips During This Survey Week	Employees Who Used This Mode at Least Once During This Survey Week	% of Employees Who Used This Mode at Least Once During This Survey Week
Drive Alone *	323	82.2%	75	91.5%
Carpool	18	4.6%	5	6.1%
Vanpool	7	1.8%	2	2.4%
Motorcycle - 1	7	1.8%	2	2.4%
Motorcycle - 2	0	0%	0	0%
Bus	5	1.3%	1	1.2%
Rail	0	0%	0	0%
Bike	25	6.4%	10	12.2%
Walk	0	0%	0	0%
Telework	1	0.3%	1	1.2%
CWW	1	0.3%	1	1.2%
Boarded Ferry with Car/Van/Bus	0	0%	0	0%
Used Ferry As Walk On	0	0%	0	0%
Other	6	1.5%	1	1.2%

\* Drive alone mode includes fill-in, where applicable.

## Commute Trips By Mode - Affected Employees

Q.4a: Last week, what type of transportation did you use each day to commute TO your usual work location? (Mode used for the longest distance.)

Mode Split - Affected Employees



Mode	Trips During This Survey Week	% of Trips During This Survey Week	Employees Who Used This Mode at Least Once During This Survey Week	% of Employees Who Used This Mode at Least Once During This Survey Week
Drive Alone *	287	80.8%	66	90.4%
Carpool	18	5.1%	5	6.8%
Vanpool	7	2%	2	2.7%
Motorcycle - 1	7	2%	2	2.7%
Motorcycle - 2	0	0%	0	0%
Bus	5	1.4%	1	1.4%
Rail	0	0%	0	0%
Bike	24	6.8%	9	12.3%
Walk	0	0%	0	0%
Telework	1	0.3%	1	1.4%
CWW	0	0%	0	0%
Boarded Ferry with Car/Van/Bus	0	0%	0	0%
Used Ferry As Walk On	0	0%	0	0%
Other	6	1.7%	1	1.4%

\* Drive alone mode includes fill-in, where applicable.

### Alternative Modes - Number of Employees Who Used a Non-Drive Alone Mode:

Non-Drive Alone Number Of Days	Exactly this # of Employees	Exactly this % of Employees	At least # of Employees	At least % of employees
0 Day	61	74%	82	100%
1 Days	5	6%	21	26%
2 Days	4	5%	16	20%
3 Days	3	4%	12	15%
4 Days	5	6%	9	11%
5 Days	3	4%	4	5%
6 or More Days	1	1%	1	1%

### Work Schedules By Group - All Employees (This table shows the relationship between work schedule and commute mode)

Employees who worked:	Drive Alone 5 days / week		Drive Alone 3 or 4 days / week		Used Bus At Least 3 days / week		Carpooled At Least 3 days / week		Used Rail At Least 3 days / week		Vanpooled At Least 3 times / week		Biked or Walked At Least 3 Days / week		Used 'Other' Modes At Least 3 Days / week		Used Non-Drive Alone At Least 3 Days / week	
5 days a week	49	68.1%	10	13.9%	1	1.4%	3	4.2%	0	0%	2	2.8%	4	5.6%	1	1.4%	11	15.3%
4 days a week (4/10s)	0	0%	2	100%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
3 days a week	0	0%	1	50%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
9 days in 2 weeks (9/80)	2	100%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
7 days in 2 weeks	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
Other	1	25%	1	25%	0	0%	1	25%	0	0%	0	0%	0	0%	0	0%	1	25%

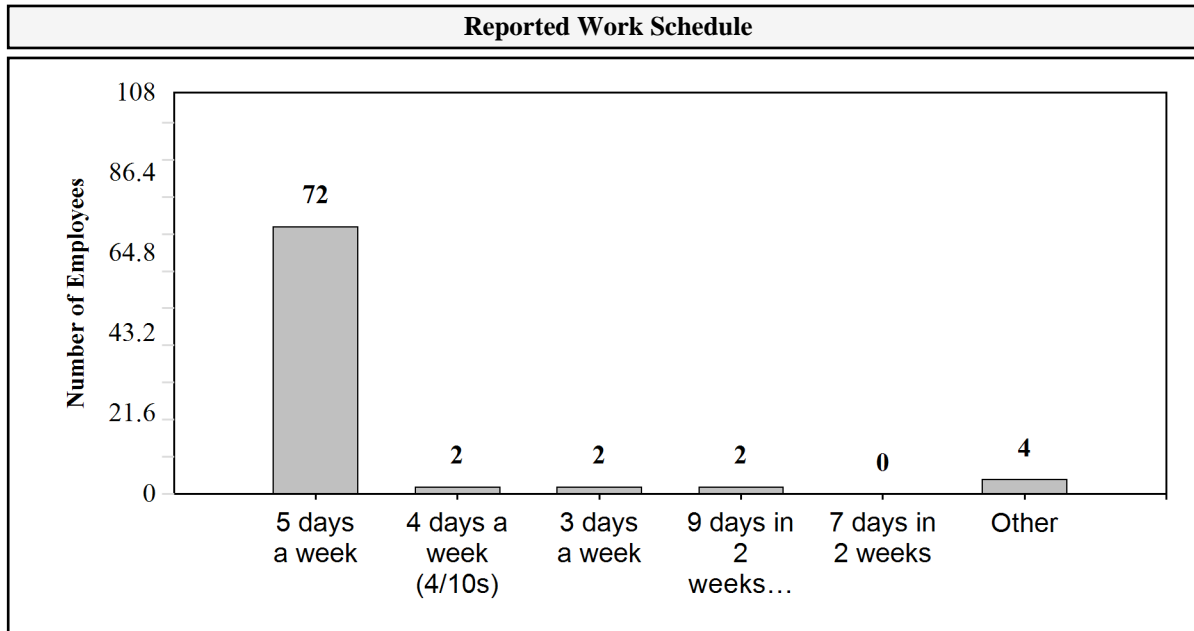
## Count by Occupancy of Carpools, Vanpools, and Motorcycles

Q.4b If you used a carpool or vanpool as part of your commute, or if you ride a motorcycle, how many people (age 16 or older) are usually in the vehicle?

Ridesharing Occupancy	Mode	Response Count
1	Motorcycle	8
2	Motorcycle	0
2	Carpool	8
3	Carpool	10
4	Carpool	0
5	Carpool	0
>5	Carpool	0
<5	Vanpool	0
5	Vanpool	3
6	Vanpool	0
7	Vanpool	0
8	Vanpool	4
9	Vanpool	0
10	Vanpool	0
11	Vanpool	0
12	Vanpool	0
13	Vanpool	0
14	Vanpool	0
15	Vanpool	0

## Reported Work Schedule - All Employees

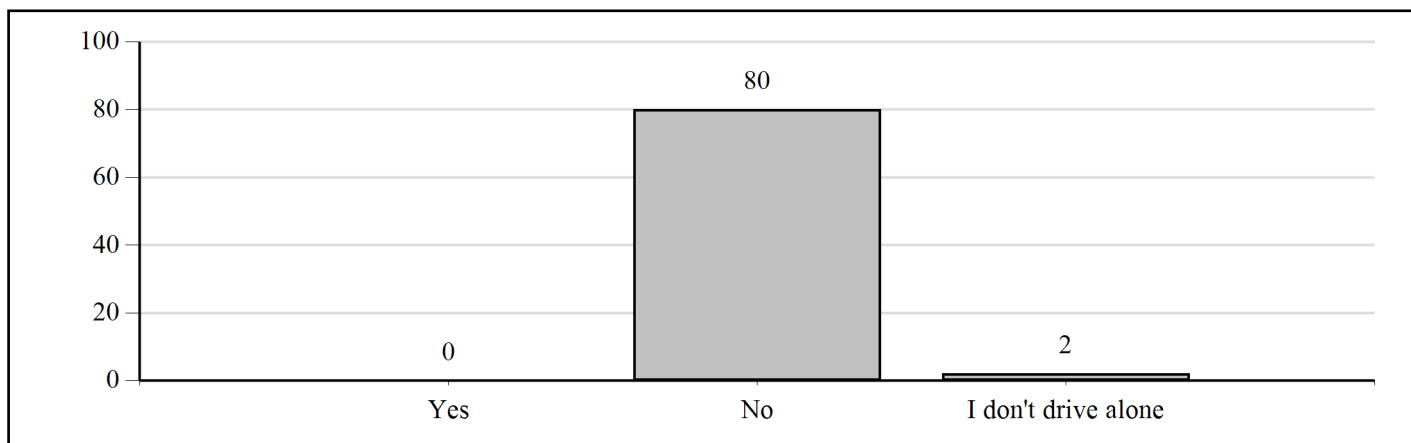
Q.5 Which of the following best describes your work schedule?



Reported Work Schedule	# Of Responses	% Of Employees
5 days a week	72	87.8%
4 days a week (4/10s)	2	2.4%
3 days a week	2	2.4%
9 days in 2 weeks (9/80)	2	2.4%
7 days in 2 weeks	0	0%
Other	4	4.9%

## Parking and Telework

**Q.9: On the most recent day that you drove alone to work, did you pay to park? (Mark "yes" if you paid that day, if you prepaid, if you are billed later, or if the cost of parking is deducted from your paycheck.)**



**Q.10: How many days do you typically telework?**

Telework Frequency	# of Responses	% of Responses
No Answer/Blank	0	0.0%
I don't telework	54	65.9%
Occasionally, on an as-needed basis	18	22.0%
1-2 days/month	9	11.0%
1 day/week	1	1.2%
2 days/week	0	0.0%
3 days/week	0	0.0%



## Reasons for driving alone to work/not driving alone to work

**Q11. When you do not drive alone to work, what are the three most important reasons?**

Question Text	# of Responses	% of Responses
Personal health or well-being	29	17.5%
Financial incentives for carpooling, bicycling or walking.	27	16.3%
To save money	24	14.5%
Environmental and community benefits	23	13.9%
To save time using the HOV lane	20	12.0%
Other	13	7.8%
I have the option of teleworking	10	6.0%
Free or subsidized bus, train, vanpool pass or fare benefit	6	3.6%
Driving myself is not an option	6	3.6%
Cost of parking or lack of parking	3	1.8%
Emergency ride home is provided	3	1.8%
I receive a financial incentive for giving up my parking space	1	0.6%
Preferred/reserved carpool/vanpool parking is provided	1	0.6%

**Q12. When you drive alone to work, what are the three most important reasons?**

Question Text	# of Responses	% of Responses
Riding the bus or train is inconvenient or takes too long	58	26.7%
I like the convenience of having my car	57	26.3%
Family care or similar obligations	29	13.4%
My job requires me to use my car for work	23	10.6%
Other	21	9.7%
My commute distance is too short	16	7.4%
Bicycling or walking isn't safe	10	4.6%
I need more information on alternative modes	3	1.4%
There isn't any secure or covered bicycle parking	0	0.0%

**Employee Transit Use - All Employees**

**Q 13. Please indicate the number of one-way transit or walk-on ferry trips you took last week on each system listed below (for any purpose, not just getting to and from work). Please select "Other" if your transit isn't listed.**

Trips/Week	Employees Making This Many Transit Trips in a Week									
	Community Transit	Everett Transit	Intercity Transit	King County Metro	Kitsap Transit	Pierce Transit	Sound Transit	Whatcom Transportation Authority	Ferry as Walk-On	Other
1	1	0	0	0	0	0	1	0	1	0
2	0	0	0	3	0	0	0	0	1	0
3	0	0	0	1	0	0	1	0	0	0
4	0	0	0	0	0	0	0	0	0	0
5	1	0	0	1	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0
9	0	0	0	0	0	0	0	0	0	0
10	0	0	0	1	0	0	1	0	0	0
11 or more	0	0	0	0	0	0	0	0	0	0
# Of Employees using Transit	2	0	0	6	0	0	3	0	2	0
Total One-Way Transit Trips Per Week	6	0	0	24	0	0	14	0	3	0

**Employee Transit Use - Affected Employees**

**Q 13. Please indicate the number of one-way transit or walk-on ferry trips you took last week on each system listed below (for any purpose, not just getting to and from work). Please select "Other" if your transit isn't listed.**

Trips/Week	Employees Making This Many Transit Trips in a Week									
	Community Transit	Everett Transit	Intercity Transit	King County Metro	Kitsap Transit	Pierce Transit	Sound Transit	Whatcom Transportation Authority	Ferry as Walk-On	Other
1	1	0	0	0	0	0	1	0	1	0
2	0	0	0	2	0	0	0	0	1	0
3	0	0	0	1	0	0	1	0	0	0
4	0	0	0	0	0	0	0	0	0	0
5	1	0	0	1	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0
9	0	0	0	0	0	0	0	0	0	0
10	0	0	0	1	0	0	1	0	0	0
11 or more	0	0	0	0	0	0	0	0	0	0
# Of Employees using Transit	2	0	0	5	0	0	3	0	2	0
Total One-Way Transit Trips Per Week	6	0	0	22	0	0	14	0	3	0

## Commute Mode By ZipCode for All Employees

Q8. What is your home zip code?

Home Zip code	Total Employees	Employee Percentage	Weekly Count of Trips By Mode												
			Drive Alone	Carpool	Vanpool	Motorcycle	Bus	Train	Bike	Walk	Telework	CWW	Ferry (Car/Van/Bus)	Ferry (walk-on)	Other
98003	1	1.22%	3	0	0	0	0	0	0	0	0	0	0	0	0
98004	1	1.22%	5	0	0	0	0	0	0	0	0	0	0	0	0
98006	1	1.22%	5	0	0	0	0	0	0	0	0	0	0	0	0
98007	1	1.22%	4	0	0	0	0	0	0	0	0	0	0	0	0
98008	1	1.22%	5	0	0	0	0	0	0	0	0	0	0	0	0
98011	3	3.66%	10	0	0	0	0	0	5	0	0	0	0	0	0
98012	4	4.88%	13	0	0	0	0	0	0	0	0	0	0	0	6
98014	1	1.22%	0	5	0	0	0	0	0	0	0	0	0	0	0
98019	1	1.22%	5	0	0	0	0	0	0	0	0	0	0	0	0
98020	1	1.22%	3	0	0	0	0	0	2	0	0	0	0	0	0
98021	3	3.66%	12	0	0	1	0	0	2	0	0	0	0	0	0
98023	1	1.22%	0	4	0	0	0	0	0	0	0	0	0	0	0
98025	1	1.22%	5	0	0	0	0	0	0	0	0	0	0	0	0
98027	1	1.22%	5	0	0	0	0	0	0	0	0	0	0	0	0
98028	5	6.10%	16	0	0	0	0	0	5	0	0	0	0	0	0
98031	1	1.22%	5	0	0	0	0	0	0	0	0	0	0	0	0
98033	2	2.44%	6	0	0	0	0	0	4	0	0	0	0	0	0
98034	4	4.88%	15	0	0	5	0	0	0	0	0	0	0	0	0
98037	1	1.22%	5	0	0	0	0	0	0	0	0	0	0	0	0
98045	1	1.22%	5	0	0	0	0	0	0	0	0	0	0	0	0
98052	5	6.10%	21	0	0	0	0	0	3	0	0	0	0	0	0
98053	4	4.88%	16	3	0	0	0	0	0	0	0	0	0	0	0
98056	3	3.66%	15	0	0	0	0	0	0	0	0	0	0	0	0
98058	1	1.22%	1	0	4	0	0	0	0	0	0	0	0	0	0
98059	2	2.44%	7	0	3	0	0	0	0	0	0	0	0	0	0
98072	3	3.66%	12	0	0	0	0	0	1	0	0	0	0	0	0



98075	2	2.44%	9	0	0	0	0	0	1	0	0	0	0	0	0
98077	3	3.66%	15	0	0	0	0	0	0	0	0	0	0	0	0
98087	1	1.22%	5	0	0	0	0	0	0	0	0	0	0	0	0
98103	2	2.44%	10	0	0	0	0	0	0	0	0	0	0	0	0
98106	1	1.22%	5	0	0	0	0	0	0	0	0	0	0	0	0
98112	1	1.22%	5	0	0	0	0	0	0	0	0	0	0	0	0
98117	1	1.22%	5	0	0	0	0	0	0	0	0	0	0	0	0
98119	1	1.22%	5	0	0	0	0	0	0	0	0	0	0	0	0
98125	1	1.22%	0	0	0	0	5	0	0	0	0	0	0	0	0
98133	1	1.22%	5	0	0	0	0	0	0	0	0	0	0	0	0
98136	1	1.22%	4	0	0	0	0	0	0	0	0	0	0	0	0
98144	1	1.22%	5	0	0	0	0	0	0	0	0	0	0	0	0
98155	3	3.66%	11	0	0	0	0	0	2	0	0	0	0	0	0
98168	1	1.22%	5	0	0	0	0	0	0	0	0	0	0	0	0
98204	1	1.22%	5	0	0	0	0	0	0	0	0	0	0	0	0
98208	1	1.22%	5	0	0	0	0	0	0	0	0	0	0	0	0
98270	1	1.22%	4	0	0	0	0	0	0	0	0	1	0	0	0
98272	1	1.22%	5	0	0	0	0	0	0	0	0	0	0	0	0
98275	1	1.22%	3	0	0	2	0	0	0	0	0	0	0	0	0
98290	1	1.22%	5	0	0	0	0	0	0	0	0	0	0	0	0
98408	1	1.22%	3	2	0	0	0	0	0	0	0	0	0	0	0
98422	1	1.22%	4	0	0	0	0	0	0	0	1	0	0	0	0
98498	1	1.22%	1	4	0	0	0	0	0	0	0	0	0	0	0